

To: Participants  
EOS PM-1 Science Data Validation Workshop  
University of Maryland Inn & Conference Center  
April 1-2, 1998

Dear Workshop Participant:

The EOS PM-1/SeaWinds Science Data Validation Workshop is fast approaching. To enhance your participation, I thought that it would be a good idea to go over the objectives of the workshop and clarify the purpose of the breakout sessions and what is expected. You should probably review the agenda. It has been recently revised and is available from the main workshop webpage.

The purpose of this Workshop is to help maximize the value and cost-effectiveness of the validation program for the PM-1 and SeaWinds missions by encouraging and facilitating coordination among the PM-1 and SeaWinds Science Teams. The workshop will especially emphasize the new data products associated with AIRS/AMSU/HSB, AMSR and SeaWinds and the potential synergy within and between those teams and with the MODIS and CERES teams as regards data product validation. A representative of JASON (altimeter) mission will also participate.

AIRS/AMSU/HSB and AMSR have generated draft validation plans which are available from the EOS Validation Program Homepage (look under documents). They and SeaWinds and JASON will open the workshop by making presentations on their validation plans in plenary session. The team presentations are followed by presentations made by representatives of selected EOS IDS investigations with high relevance to validation of AIRS/AMSU/HSB, AMSR and SeaWinds data products. These are all made in plenary session.

Also available from the EOS Validation Program Homepage are the present validation plans of MODIS and CERES, though it should be noted that the focus of those plans is primarily on the validation of their products following the launch of the AM-1 mission. The AM-1 Validation Workshop was pretty successful in stimulating collaborations between the AM-1 teams and in forming partnerships with various appropriate R&A Programs and with other national programs, such as the DoE ARM Program. I see this workshop as an opportunity for all parties to benefit through establishing such cooperation and collaboration for the PM-1, SeaWinds, and Jason activities.

## First Discipline Breakout Session (PM Day 1)

This session will begin with a brief presentation on activities in the appropriate NASA Research and Analysis (R&A) program. Next will be a short presentation on the appropriate component of MODIS or CERES outlining the key approaches and associated implementation (e.g., field programs, data collections, investigations, etc.) that they will use to validate their data products.

Two things that should be accomplished in this first meeting of the discipline breakout groups are:

- 1) Discuss briefly the appropriateness of the strawman cut of PM-1 Related Data Products chart (pdf file available under PM-1 Workshop on EOS Validation Homepage) for the discipline. This chart should not be taken as indicating redundancy between data products but rather (a) where requirements and approaches for correlative data may be similar or complementary, and (b) where direct formal comparison of global data products may be very useful.
- 2) Establish appropriate Data Product Teams with representation from each Instrument Team producing the product(s) and the IDS Teams conducting studies in this discipline area.

For example, the following Data Product Teams could be formed:

Cloud & Radiation Group forms 2 teams, plus splinter group(s)  
Cloud Properties  
Surface and TOA radiation

Meteorology Group forms 1 team, plus splinter group

Hydrology and Snow Group forms 3 teams, plus splinter group(s)  
Precipitation  
Land Surface Temp and Wetness  
Land Snow

Oceans and Sea Ice Group forms 3 teams, plus splinter group(s)  
Surface Temperature  
Surface Winds  
Sea Ice

The above structure is but a strawman. The groups should adopt the most effective structure to make progress. A primary goal of this first Discipline Session is to get appropriately organized for day 2 so that the workshop output can be maximized.

#### Data Product Team Session (AM Day 2)

This will be a working session highly focused on the specific data products established in the First Discipline Breakout Session. In this session, the Data Product Teams will select a leader and a "volunteer" to keep notes. These small groups are where communication and negotiation about the details will occur. The Data Product Teams will synthesize information on validation approaches and requirements for investigations and correlative data (test sites, networks, etc.). Identification of areas of potential collaboration is a key objective. Where appropriate, the Data Product Team will form a splinter group to consider the most appropriate approach to direct comparison of the satellite data products noting that the mechanics of such a comparison are usually much more challenging than might be superficially anticipated.

#### Second Discipline Breakout Session (PM Day 2)

The purpose of the Second Discipline Session is to try and synthesize what has been learned or developed during the meetings of the Data Product Teams, i.e., requirements for investigations and correlative measurements across the discipline. Those activities that satisfy multiple requirements are particularly important to identify and define as are activities where cooperation with R&A or other programs would be of significant mutual benefit. Recommendations should be developed for follow-on Data Product Team tasks and for program enhancements required for PM-1 science data validation.

The workshop will end with a report by each of the Discipline Working Groups and identification of recommendations and needed follow-on tasks.

In summary, the objective is to develop a more integrated and effective program by:

a) identifying requirements and planned activities that may be mutually beneficial for multiple teams and/or multiple data products, i.e., seek areas where synergy is likely and cooperative efforts advantageous, including NASA R&A programs and other national or international programs,

b) developing specific plans to compare related data products from different instruments.

It is expected that the Instrument Science Team Validation Plans, modified in response to the activities of this workshop and associated follow-up, will form the basis for identifying the needs to be addressed by a PM-1 Validation NASA Research Announcement that will be developed by the EOS Project Science Office for release in mid-1999 with funding to commence in FY2000.

I very much appreciate the time and effort that you will devote to this workshop. I believe that it will do much to enhance the effectiveness of the EOS Validation Program.

Regards,

David Starr  
EOS Validation Scientist